

ID26 - EUSKOOS (BASQUE OPERATIONAL OCEANOGRAPHY SYSTEM): AN INTEGRATED APPROACH TO PROVIDING COASTAL AND OCEANIC INFORMATION

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EuskOOS is the Basque coastal operational oceanography system operated by Euskalmet (Basque Meteorological Agency) along with the expert advice of AZTI (a technology centre specialized in marine and food research). EuskOOS is designed to provide an accurate description of the current sea state conditions in the Basque coastal and oceanic area, offering ongoing forecasts of the near future sea conditions and supplying downstream services to both local and regional users. To address its objectives, EuskOOS is connected to other European initiatives in the oceanography field. EuskOOS is part of IBIROOS (Ireland-Biscay-Iberia Regional Operational Oceanographic System) and actively contributes to the EuroGOOS (European Global Ocean Observing System) strategy. EuskOOS also benefits from innovations and best practices coming from projects such as JERICO-NEXT (Joint European Research Infrastructure network for Coastal Observatory – Novel European eXpertise for coastal observaTories, Horizon 2020 Programme). EuskOOS is also collaborating with other eight coastal observatories along the Atlantic coast within the MyCOAST project (Coordinated Atlantic Coastal Operational Oceanographic Observatory, Interreg Atlantic Area Programme).

In terms of observing capacities, EuskOOS is fed with a wide network of coastal and oceanic platforms provided by Euskalmet: high-frequency radar, deep-water buoy, coastal stations and tidal gauges. Besides, the operational oceanography system is supported with video-monitoring stations developed by

AZTI. These stations provide highly valuable information for the prevention and management of extreme events, and the acquisition of morphodynamic coastal data for long-term analysis (i.e. climate change).

The information produced is shared within European marine data structures, such as Emodnet and Copernicus Marine Service. At the same time, these facilities are used to optimize the downstream services. For the Basque local users, EuskOOS works as a walkway towards other sources of information distributed in such European marine structures.

Oceans are key climate regulators as well as sources of natural resources. Likewise, they are crucial for tourism, transport and commerce. Therefore, our future depends to a large extent on the good environmental status of the oceans. To take care of it, access to both high-quality and high-resolution information that can be continuously shared through different marine data services is needed (i.e. efficient operational oceanography systems). This is the main objective of EuskOOS, whose data will be integrated into different services for different applications (e.g. blue economy, sustainable management of natural resources, biodiversity conservation). EuskOOS will contribute to the outreach of applications and opportunities based on coastal and oceanic data.

Keywords – coastal observing system, coastal modelling, marine services.